

PCT

F14

To: BRAD A. ARMSTRONG
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WRITTEN OPINION

(PCT Rule 66)

Date of Mailing
(day/month/year)

13 SEP 2001

Applicant's or agent's file reference

27676-2/P10

REPLY DUE

within TWO months
from the above date of mailing

International application No.

PCT/US99/28654

International filing date (day/month/year)

06 DECEMBER 1999

Priority date (day/month/year)

01 OCTOBER 1997

International Patent Classification (IPC) or both national classification and IPC
IPC(7): A63F and US Cl.: 463/37

Applicant

ARMSTRONG, BRAD A.

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 01 FEBRUARY 2000

Name and mailing address of the IPEA/US

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

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I. Basis of the opinion**1. With regard to the elements of the international application:***

- ☐ the international application as originally filed
- ☒ the description:
pages 1-20 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the claims:
pages NONE , as originally filed
pages NONE , as amended (together with any statement) under Article 19
pages 21-55 , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the drawings:
pages 1-8 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the sequence listing part of the description: NONE , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets-fig NONE

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

** Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".*

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. statement

| | | | |
|-------------------------------|--------|---------------------------------|-----|
| Novelty (N) | Claims | (Please See supplemental sheet) | YES |
| | Claims | (Please See supplemental sheet) | NO |
| Inventive Step (IS) | Claims | (Please See supplemental sheet) | YES |
| | Claims | (Please See supplemental sheet) | NO |
| Industrial Applicability (IA) | Claims | (Please See supplemental sheet) | YES |
| | Claims | (Please See supplemental sheet) | NO |

2. citations and explanations

Claims 1-4, 7, 8, 10, 16-19, 34-38, 45-49, 52, 53, 55, 58-100, 113-116, 130-132, 137 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a game controller with pressure-sensitive variable-conductance switches.

Claims 5, 6, 9, 11-15, 20-33, 39-44, 50, 51, 54, 56, 57, 101-112, 117-129, 133-136 lack an inventive step under PCT Article 33(3) as being obvious over INOUE ET AL in view of RUTLEDGE ET AL.

INOUE ET AL discloses a controller (10) of the type held in two hands which is used for controlling computer imagery. A plurality of depressible surfaces (12, 13) are pressed by the user and in turn press upon electricity-manipulating devices (121-123, 133-134) that generated signals which are then output to the computer for use in controlling imagery. One of the depressible surfaces comprises a four-position rocker switch, with four electricity-manipulating devices associated with it. (See INOUE ET AL columns 3-7 and figures 1, 3, and 6.)

INOUE ET AL does not disclose the electricity-manipulating devices as being variable-conductance sensors in order to provide an analog signal so that a user can control the computer imagery action in proportion to the intensity of force used on the controls.

RUTLEDGE ET AL discloses a controller for controlling computer imagery in which variable-conductance sensors in the controller produce analog signals that are proportional to the force applied to the controls. The signal is output to the computer and moves the screen imagery faster or slower in proportion to the amount of force exerted on the controller. (See RUTLEDGE ET AL columns 2-5 and figure 1.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use variable-conductance sensors to produce a force-proportional analog signal, as taught by RUTLEDGE ET AL, in the invention of INOUE ET AL in order to provide a more natural, intuitive feel for the controller.

(Continued on Supplemental Sheet.)

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

TIME LIMIT:

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

V. 1. REASONED STATEMENTS:

The opinion as to Novelty was positive (YES) with respect to claims 1-137.

The opinion as to Novelty was negative (NO) with respect to claims NONE.

The opinion as to Inventive Step was positive (YES) with respect to claims 1-4, 7, 8, 10, 16-19, 34-38, 45-49, 52, 53, 55, 58-100, 113-116, 130-132, 137.

The opinion as to Inventive Step was negative (NO) with respect to claims 5, 6, 9, 11-15, 20-33, 39-44, 50, 51, 54, 56, 57, 101-112, 117-129, 133-136.

The opinion as to Industrial Applicability was positive (YES) with respect to claims 1-137.

The opinion as to Industrial Applicability was negative (NO) with respect to claims NONE.

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):

----- NEW CITATIONS -----

US 5,764,219 A (RUTLEDGE ET AL) 09 JUNE 1998.

US 5,207,426 A (INOUE ET AL) 04 MAY 1993.